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ABSTRACT

The performance of students who transferred from Harrisburg Area Community College (H.A.C.C.), Pennsylvania to 56 4-year colleges and universities in 1966 is evaluated in this study. Building on data provided during a previous study on success of transfer students after an initial semester of work, this study follows their performance during the next three and one-half years. Initially, the students are characterized in terms of sex, age, prior academic background and achievement, H.A.C.C. academic performance, and curricula pursued. Then, the colleges to which students transferred are described, and the curriculum they took compared to that taken at H.A.C.C. Next, student achievement and persistence at the transfer institution is reviewed. Some of the results and conclusions are: 71 per cent of the students in the study earned baccalaureate degrees by the end of the fall 1969 semester; many students' initial quarter performance was affected by the transfer, but subsequently improved; and students at Pennsylvania state colleges, older students, students who ranked high in their high school classes, and women students earned proportionately more degrees than counterpart groups. (JO)

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1966 TRANSFER STUDENT PERFORMANCE

Research Report No. 4

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The Harrisburg Area Community College first conferred associate degrees in June, 1966. An earlier study of the first group of students who transferred during 1966 from the Harrisburg Area Community College attempted to measure the initial success of transfer students, using the criteria of credits accepted and not accepted, grade point averages earned during the first semester or term at senior colleges, and differences between the grade point averages earned at H.A.C.C. and at the senior colleges (Snyder, 1967). Although that earlier study was based upon only one semester or term of academic work completed at senior institutions, several conclusions were drawn:

1. Overall, the transfer students experienced a modest drop in grade point average from their previous achievement level at H.A.C.C. The average drop was just over four-tenths of a grade point from their achievement level at H.A.C.C.
2. Credits earned at H.A.C.C. were accepted at transfer colleges with only a very small loss. Students were granted transfer credit for all but an average of 2.4 credit hours which had been earned at H.A.C.C.

As a result of this earlier study, it was not believed necessary to consider further the transfer of credits from the Community College to the senior institutions. But further evaluations of the transfer students' performance over a period of two years or longer were believed necessary. Therefore, this study was designed to measure the performance of transfer students in terms of grade achievement and proportions who

earned bachelor's degrees, and to examine briefly certain relationships between student achievement and personal characteristics, types of colleges attended, and types of academic programs pursued at four-year colleges and universities.

The Population

One hundred seventy-four students were identified as having transferred from the Harrisburg Area Community College to 56 four-year colleges and universities during 1966.

Obtaining information about former students is not as simple as it might appear. Students are not obligated to report their activities after leaving the College, and despite extensive follow-up efforts, the subsequent activities of a few former students remain unknown. In the earlier 1967 study, information about the transfer college performance of 127 students was obtained from their transfer institutions. Through subsequent follow-up studies of former students, an additional 47 students were found to have transferred to senior colleges during 1966.

Most of the 139 students in transfer programs who received associate degrees in 1966 were included in this study. Of the 174 students in this study, 126 were awarded associate degrees, nearly all of whom were in transfer programs. While a few students in this study may have earned associate degrees in career programs, they probably comprise a very small portion of the total. The remaining 48 students did not earn associate degrees before transferring.

Data about transfer student performance for this study were obtained generally from transcripts supplied by the various institutions at the

request of the writers. Additional information about personal characteristics and academic background were obtained from student master records at H.A.C.C. Nine institutions (five in Pennsylvania) stated that they were unable to supply transcripts for the study unless permission was granted by the student involved. However, two of these colleges agreed to supply specific information necessary for the completion of this study, but not the entire student transcript. In all, complete information for this study was available for 149 students, leaving 25 persons for whom certain data about their achievement at transfer colleges were lacking.

Inadvertently, three students who did not belong were included in this study. One matriculated at a transfer institution after 1966. Two matriculated at non-baccalaureate institutions. A fourth student who did not complete his first semester at a transfer institution is included, but his baccalaureate degree outcomes are noted as unknown. Data concerning these four persons were not removed from the study or corrected, as the irregularities were discovered after all tabulations had been completed.

Plan of this Paper

This paper is organized to provide, first, a description of the students and their academic background prior to transferring from H.A.C.C. This is followed by a brief description of the colleges to which students transferred from H.A.C.C. Third, a review of the data relating to the persistence and achievement of students at the transfer institutions is included. The data on persistence and achievement are related to personal and academic background characteristics of the students, transfer colleges attended, types of programs pursued, and so forth. Finally, a brief

summary of this study, and some conclusions which the writers have drawn, follow the discussion of results.

This report is intended to be of value to educators and others who are interested in the results of student transfer from community colleges to four-year colleges and universities. Sufficient numerical data are included in the body of the report to provide some specificity of the findings, but most of the data are contained in tables which appear in an Appendix to this report. Thus, the reader can move through the body of the report with relative ease and still gain a sense of the meanings of the data. In just a few instances, the findings of this report are compared to those in other studies, to provide a broader perspective of the implications of the results of this study.

Results

Description of Students

Of the 174 students who were known to transfer from H.A.C.C. to four-year colleges and universities during 1966, 64 percent were males and 36 percent were females (Table 1). Most of these students were rather young, reflecting that this first group of transfer students included relatively few "older" or adult students. Eighty-two percent of the transfer students were between the ages of 18 and 21 as of December 31, 1966 (Table 2).

Twelve percent of the transfer students had attended a college prior to enrolling at H.A.C.C. Males, more than females, reported attendance at a prior college (Table 3).

The academic achievement during high school of the transfer student population varied widely. Students were fairly evenly distributed among the upper four achievement quintiles, with proportions ranging from a low of 18 percent in the fourth fifth to 23 percent in the middle fifth (Table 4). Just six percent of the students ranked in the lowest fifth of their high school class. Figure 1 shows the distribution of high school rank separately for males and females of the transfer student group. Females ranked markedly higher than males; whereas two-thirds of the females graduated from high school in the upper two-fifths of their classes, only three-tenths of the males ranked as high. At the lower level, one-third of the males ranked in the lower two-fifths, compared to just five percent of the females.

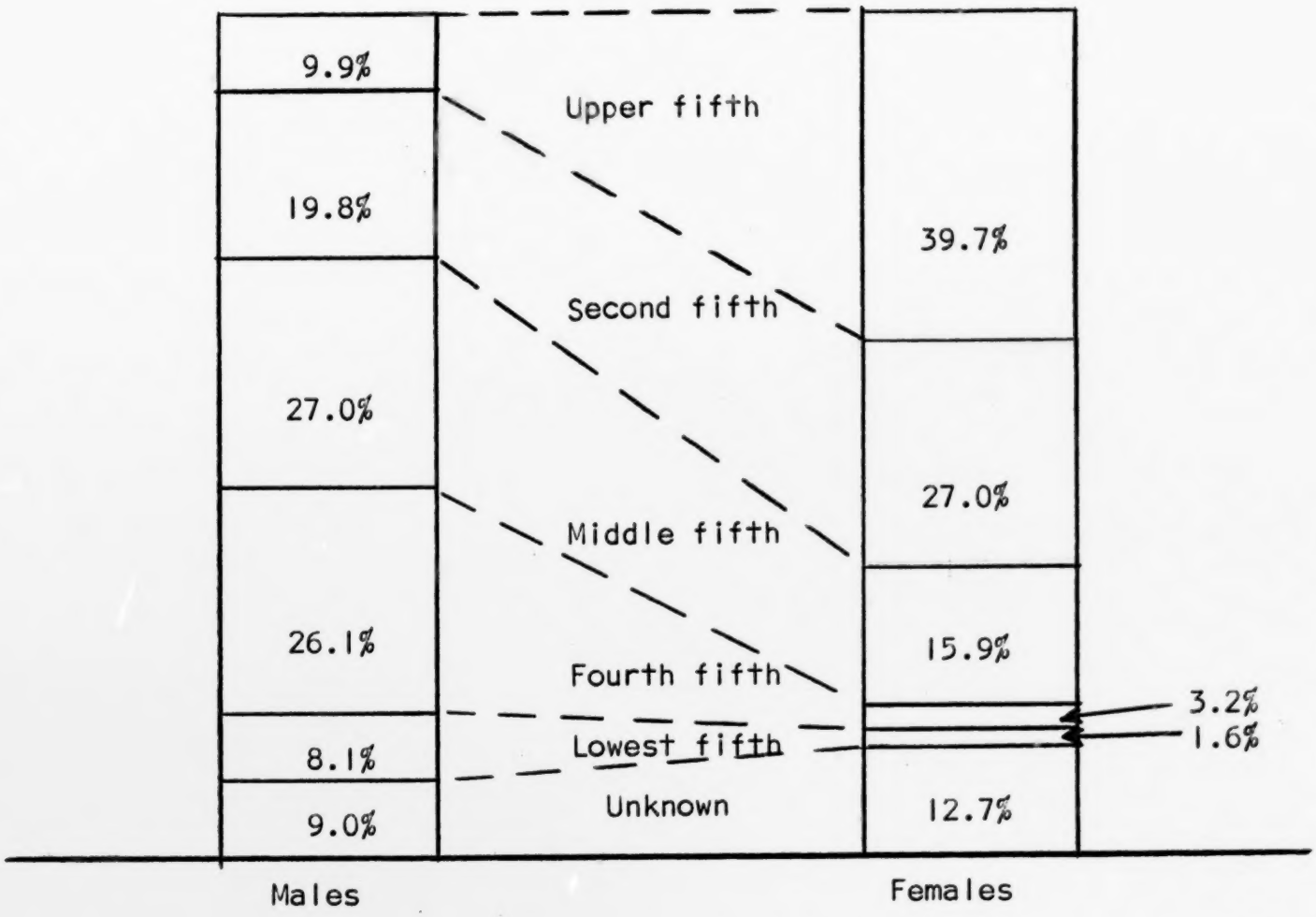

Figure 1. High school rank in class for male and female transfer students.

There was a broad range in the academic achievement by transfer students during their enrollment at H.A.C.C. (Table 5). All but four of the transfer students earned averages of 2.00 (C average) or higher. Two-thirds of the students earned a grade point average at H.A.C.C. of between 2.00 and 2.99. An additional three-tenths earned a grade point average of between 3.00 and 4.00 (B or better). Females earned higher grade point averages than males; one-half of the females earned a B average or better as compared to just two-tenths of the males. These findings, and those in other studies (Klein and Snyder, 1969; Snyder and Klein, 1969) show that, for complex reasons, females earned better grades in high school and at college. There appears to be no overall difference in academic aptitude of men and women students at H.A.C.C., as based on American College Testing Program Composite scores. However, the English scores for students at H.A.C.C. are consistently higher for women than for men.

The curricula pursued at H.A.C.C. by the transfer students were categorized into four groups: (1) a liberal arts group which included life sciences, arts, language arts, mathematics and physical science, and social science; (2) business administration; (3) education; and (4) a miscellaneous "others" group. One-half of the students were enrolled at H.A.C.C. in a liberal arts program, 22 percent were enrolled in education, 18 percent were enrolled in business administration, and 9 percent were enrolled in other programs (Table 7). The liberal arts were most popular for both males and females. The second most popular choice for males was business administration, while the second most popular choice for females was education.

Nearly three-fourths of the students earned their associate degree before transferring to senior institutions (Table 7). Proportionally slightly more females than males earned the associate degree (74.6 percent compared to 71.2 percent).

Colleges Attended

The 174 students in this study transferred to a total of 56 senior colleges and universities. These institutions, with the number of students that attended each, are listed in Figure 2. Of this first group of transfer students, three-fourths transferred to colleges in Pennsylvania and one-fourth to out-of-state institutions (Table 8). About one-third of the students transferred to Pennsylvania State Colleges, and four-tenths transferred to other colleges in Pennsylvania. Shippensburg State College, Millersville State College, Pennsylvania State University, and Temple University enrolled the highest number of transfer students from H.A.C.C. Together, they enrolled over four-tenths of the entire transfer group.

One point of interest here is that very few former H.A.C.C. students were enrolled in 1966 at the Capitol Campus of the Pennsylvania State University. Capitol Campus opened in 1966 with a very small enrollment and with a limited number of programs. Subsequent enrollments at Capitol Campus from H.A.C.C. have grown considerably, to the point where it is the institution to which this college's graduates transfer most frequently. There are several reasons for this. First, Capitol Campus is nearby, and local students who enroll there may save costs on room and board by living at home. Second, tuition charges are moderate. Third, and

PENNSYLVANIA STATE COLLEGES (60)

Bloomsburg (4)
Kutztown (2)
Lock Haven (3)
Mansfield (7)
Millersville (18)
Shippensburg (22)
Slippery Rock (2)
West Chester (2)

OTHER PENNSYLVANIA COLLEGES (69)

Crozier (1)
Dickinson (2)
Duquesne (1)
Elizabethtown (14)
Franklin & Marshall (2)
Geneva (1)
Grove City (1)
Immaculata (1)
Lebanon Valley (2)
Lycoming (1)
Messiah (7)
Penn State-Capitol Campus (6)
Penn State-University Park (10)
Temple (16)
University of Pennsylvania (1)
University of Pittsburgh (1)
Ursinus (1)
Waynesburg (1)

OUT-OF-STATE COLLEGES (45)

Asbury (1)
Belmont Abby (1)
Bridgewater (1)
Catholic University (1)
Central State (1)
Findlay (1)
George Washington (1)
Grace (1)
Howard (1)
Jacksonville (4)
Louisiana State (1)
Memphis State (5)
Mt. St. Mary (2)
Northeastern (1)
Parsons (1)
Pratt Institute (1)
St. Cloud (1)
St. Mary's (1)
Stetson (1)
Syracuse (1)
Tobe Coburn (2)
Tri-State (2)
University of Arkansas (2)
University of Georgia (1)
University of Hawaii (1)
Univ of Oklahoma (3)
Univ of South. Florida (1)
University of Texas (1)
West Liberty (1)
West Virginia University (3)

Figure 2. Colleges and universities to which H.A.C.C. students transferred, and number attending.

perhaps most significant in the long run, is the practice of their granting full junior status to students who have earned the associate degree, thus assuring that the student can earn his bachelor's degree in the normal two years of upper-division study.

Curriculum at H.A.C.C. In examining the patterns of transfer to various institutions, there appeared to be some relationships between the students' curricula at H.A.C.C. and their choice of four-year college or university (Table 8). About nine-tenths of the transfers to Pennsylvania State Colleges were from liberal arts or education programs at H.A.C.C., in about equal numbers. About one-half of the transfers to other colleges in Pennsylvania were enrolled in liberal arts programs. Just over one-half of the students who attended out-of-state colleges were enrolled in liberal arts programs, and the remainder were from various other programs.

Curriculum at transfer colleges. The programs in which students enrolled at four-year colleges and universities were grouped as follows: liberal arts, elementary education, secondary education, social science, science and engineering, business administration, and others and unknown. Enrollments in these programs are shown separately for males and females in Table 9. Secondary education was the most popular curricular area at transfer colleges, followed by business administration, liberal arts, elementary education, social science, and science and engineering.

Figure 3 shows enrollments in these curricular areas separately for males and females. Patterns of enrollment for males and females were quite different. Secondary education and business administration were

most popular for males, together enrolling nearly one-half of the male students. Elementary education was most favored by females; nearly one-third of the female students enrolled in elementary education programs at transfer colleges and universities.

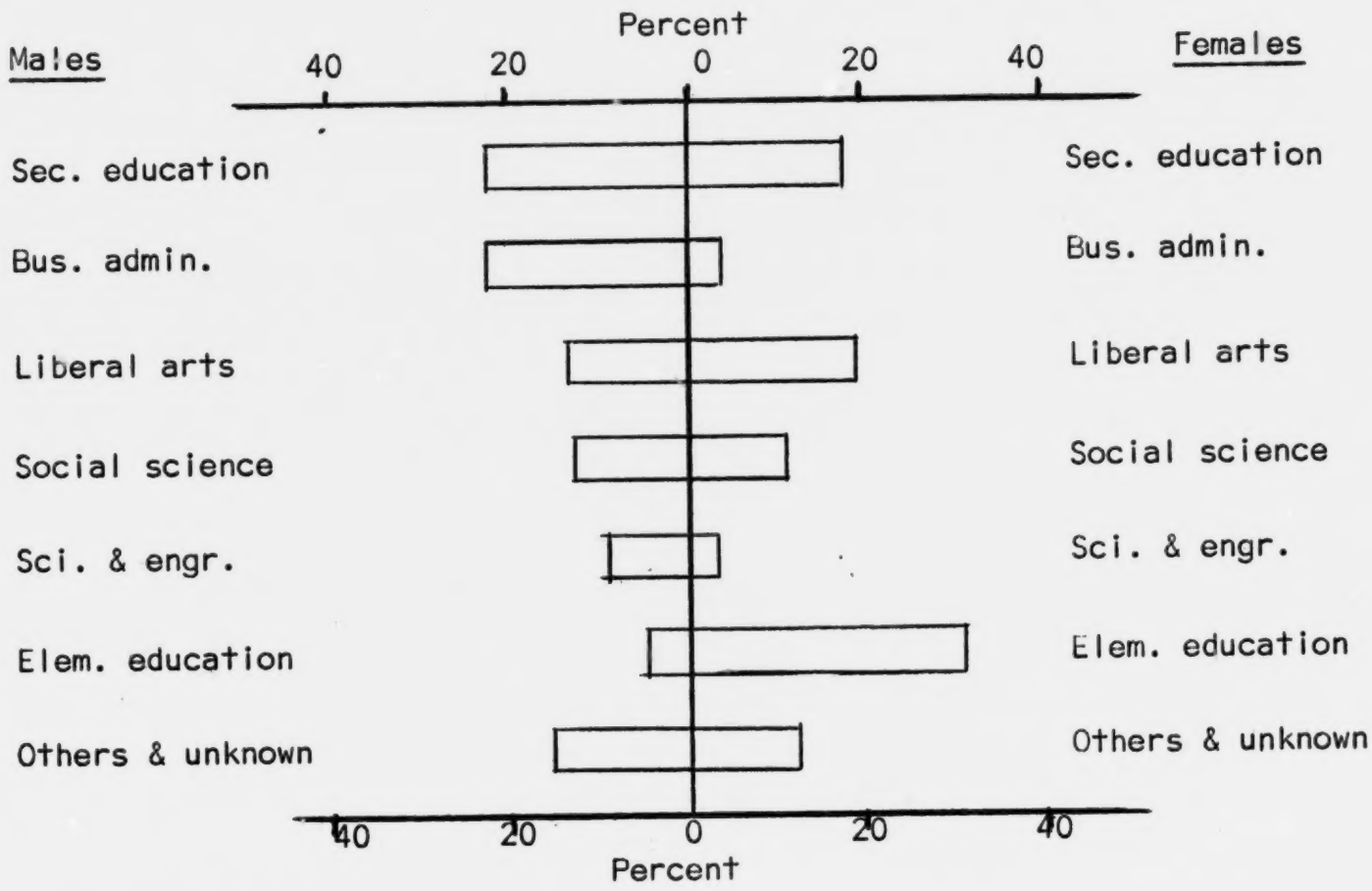

Figure 3. Enrollment in four-year colleges or universities by curricular areas for males and females.

Persistence and Achievement

This section examines the grade achievement level earned by transfer students, the proportions who earned bachelor's degrees, and certain personal and other factors which appear to be related to academic achievement.

Grade achievement level. Figure 4 illustrates the average grades earned throughout the students' careers at H.A.C.C. and during the first semester or term and during the entire period of enrollment at the senior colleges. From an achievement level of 2.73 at H.A.C.C. students earned a 2.31 grade point average during their first term or semester at senior institutions during 1966. But, their cumulative level of achievement rose to 2.56 by the end of 1969, providing some evidence of a "transfer shock" and recovery as noted in an earlier study by Medsker (1960, p. 131) and Knoell and Medsker (1965, p. 27). A drop of .42 grade points during the first semester at the transfer institutions was subsequently reduced to .24 grade points. Note that this improvement in achievement at the transfer institution is greater than it first appears, because of the fact that the cumulative average shows less change than the subsequent individual term averages. These data are for all students for whom information was available, including those who persisted to earn a bachelor's degree and those who did not earn a bachelor's degree, whether or not they were still in attendance as of the time of this study.

The large majority of the transfer students earned averages sufficiently high at transfer institutions to assure their good standing (Table 10). Between eight-tenths and nine-tenths of all transfer students earned averages of 2.00 (C average) or higher. Two-tenths of the group earned an average of 3.00 (B average) or higher. Females earned higher grades than males; over one-third earned a B or higher average, compared to just one-seventh of the males.

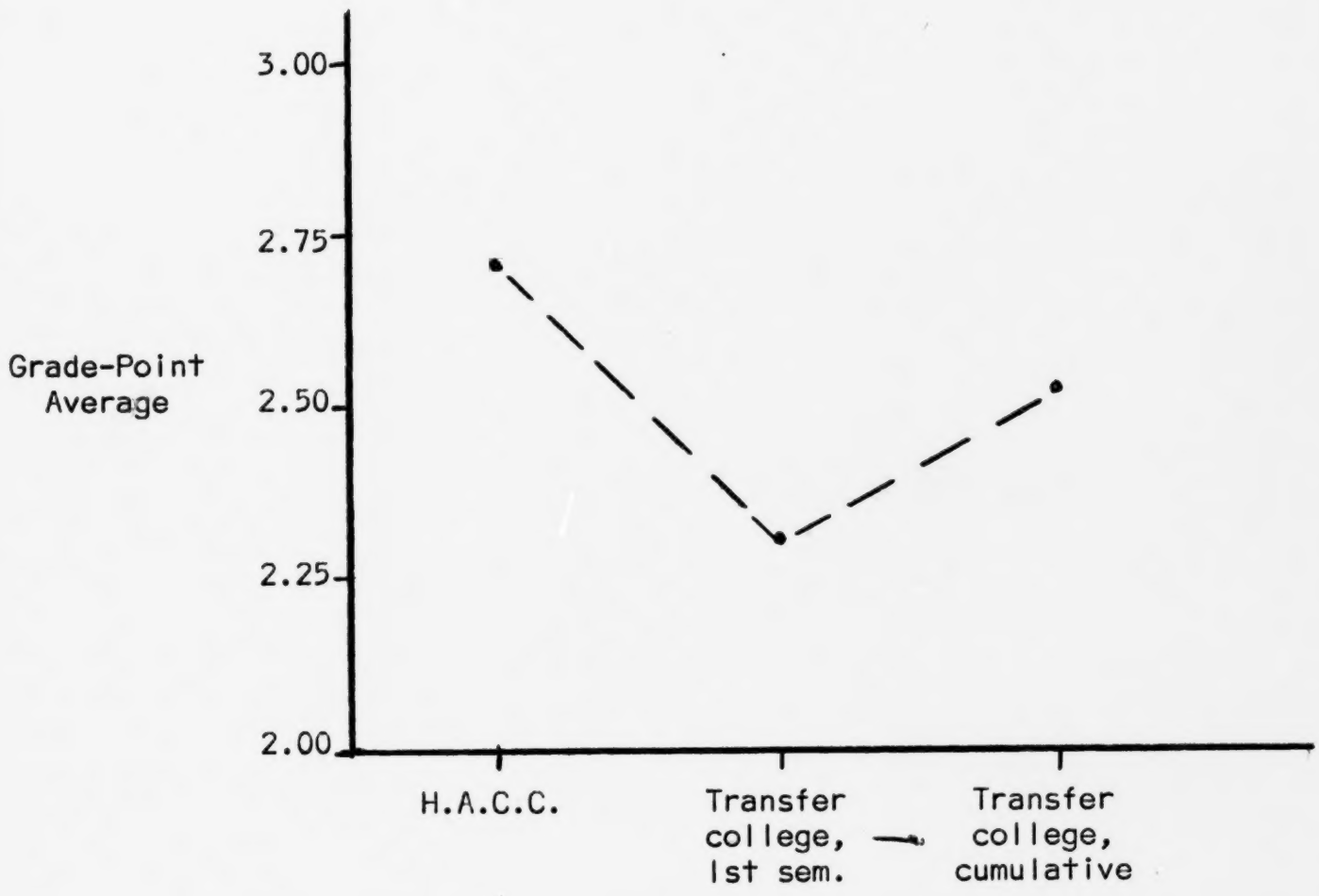

Figure 4. Grade-Point Average earned at H.A.C.C. and at transfer colleges or universities during students' first semester of attendance and entire period of attendance.

Table II contains the average grades earned at H.A.C.C. and at specific transfer institutions, both during the first semester or term and during the cumulative period of enrollment. It also shows the differences between grades earned at H.A.C.C. and at transfer institutions. These data are shown separately for those colleges and universities where two or more students attended. To protect the identity of individual colleges, names have been replaced by code numbers. Results are summarized for the three types of institutions to which students transferred. The students who transferred to

Pennsylvania State Colleges earned the highest grades at H.A.C.C. (2.82), followed by students who attended other colleges in Pennsylvania (2.77), and students at out-of-state colleges (2.55). Also, the students at the Pennsylvania State Colleges earned cumulatively higher grades at those colleges than did students who attended other colleges in Pennsylvania or out-of-state colleges. Considering students for whom cumulative averages were known, the 52 students at the Pennsylvania State Colleges earned a cumulative grade point average of 2.64, compared to a 2.56 average earned by the 64 students who attended other colleges in Pennsylvania and a 2.43 average earned by 33 students who attended out-of-state colleges. There was no variation in the grade point average drop (0.24) which resulted at the three types of colleges attended.

Degrees earned. Other studies suggest that the criterion of college achievement which has the greatest relationship to success in life after college is whether or not the individual has earned a college degree, and that college grades have little such relationship. Tables 12 through 19 show the percentages of students in various sub-groups who received bachelor's degrees by the end of 1969, tabulated by sex, colleges attended, age, high school rank in class, and attendance at college prior to H.A.C.C.

One hundred twenty-three students earned bachelor's degrees, 34 did not earn bachelor's degrees according to information received, and information could not be obtained for 17 former students. Proportionally, most of the students for whom information was unknown had transferred to out-of-state colleges. Overall, 71 percent of all students who

transferred from H.A.C.C. in 1966 to senior colleges or universities were known to have earned their degrees. This proportion is higher than the 62 percent noted by Knoell and Medsker (1965, p. 25) in a national study of transfer students from junior and community colleges.

Of those students who earned associate degrees at H.A.C.C., 73 percent earned bachelor's degrees (Table 18). Fifty-seven percent earned degrees within a two-year period after transferring, and 16 percent required more than two years.

A greater proportion of females than males earned their bachelor's degrees; 78 percent of the females and 67 percent of the males earned degrees (Table 12).

Transfer students earned bachelor's degrees proportionally most often at Pennsylvania State Colleges (75 percent), and least often at out-of-state colleges (64 percent) (Table 13). However, it should be remembered that there is more missing data for out-of-state students than for students who attended Pennsylvania colleges; and it is probable that some students for whom there is no information have, in fact, earned degrees.

Earning a bachelor's degree appeared to be related to the age of the student. Higher proportions of students of age 25 and over (as of December 31, 1969) earned degrees than did the younger students (Table 14). Just two-thirds of the students of age 24 and younger earned degrees, compared to nine-tenths of those between ages 25 through 29 and 100 percent of those age 30 and above.

There is a weak relationship between the student's high school rank in class and whether he earned a bachelor's degree (Table 15). Over eight-tenths of those who graduated in the upper fifth of their high school class, and six-tenths of those who graduated in the lower fifth, earned bachelor's degrees. Those who graduated in the fourth fifth (next to the bottom) earned bachelor's degrees at a higher rate than did those from the second or third fifth of their high school class. However, it is necessary to view any apparent relationship between earning a bachelor's degree and the student's rank in high school class with caution, as a number of possible contributing factors of the individual's personal characteristics and academic program are not controlled. Student self-selection into programs which they feel confident they can handle is a possibility which is reasonable to assume, but not proven here. Such self-selection would tend to reduce empirical relationships as noted in these paragraphs.

Students who attended a college prior to entering H.A.C.C. and who then transferred to a senior institution tended to earn bachelor's degrees more frequently than did students whose first college of attendance was H.A.C.C. Of those students who attended a prior college, 86 percent earned bachelor's degrees, while 69 percent of those who began college at H.A.C.C. earned degrees (Table 16). It is not possible to generalize firmly about these findings, however, as only 21 of the 174 transfer students had attended a college prior to enrolling at H.A.C.C.

In looking for relationships between earning a bachelor's degree and personal/background characteristics of the student, it is useful to look at several of these variables at once. Table 17 shows the proportions of students who earned bachelor's degrees, separate for males and females and for levels of high school rank in class. Only students who did not attend a college prior to H.A.C.C. are included. As was noted before, females earned degrees proportionally more than did males. Both male and female students who ranked in the upper 20 percent of their high school class earned degrees more readily than those who ranked lower. However, there was little difference by rank in class among those who were in the middle range, from the 20th through 80th percentile.

Students who earned baccalaureate degrees following the receipt of an associate degree were spread broadly over the upper four fifths of their high school rank in class (Table 19). Over three-fourths of the baccalaureate graduates came from the upper three fifths of their high school class. Three-tenths of all graduates came from the upper fifth of their high school class. Two-tenths ranked in the fourth fifth (next to the bottom) of their high school class.

Just as proportions of transfer students from within each high school achievement level were shown to differ considerably for males and females (Figure 1 and Table 4), so the proportions of baccalaureate recipients differ. Over one-half of the female degree recipients were in the upper fifth of their high school class, as compared to just 14 percent of the males. One-third of the male baccalaureate degree

recipients ranked in the fourth fifth (next to the bottom) of their high school class, as compared with just three percent of the females.

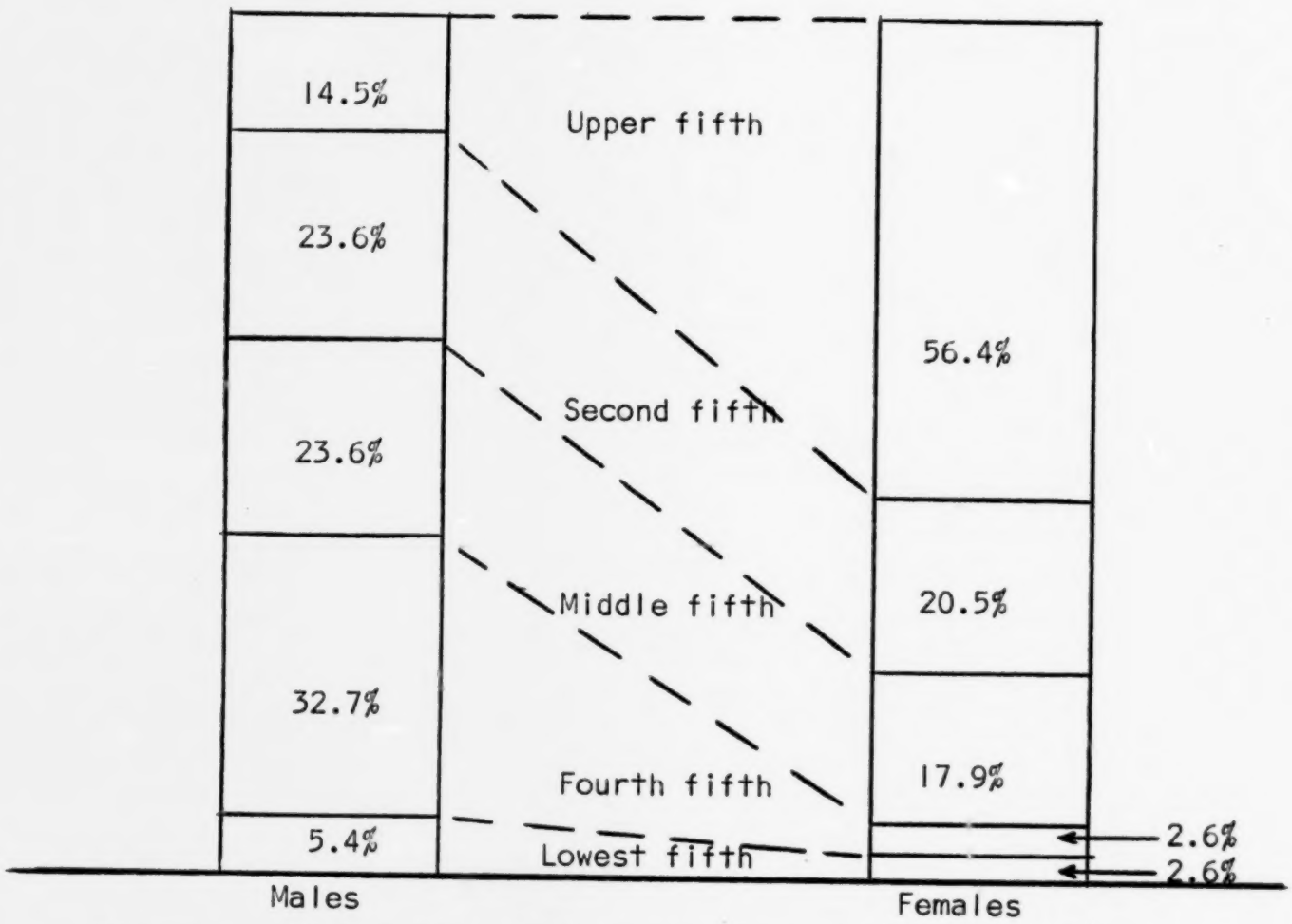

Figure 5. High school rank in class for male and female baccalaureate degree recipients, among transfer students who earned associate degrees.

Conclusions and Recommendations

This section contains a number of conclusions taken from the findings of the study and several recommendations which grow from these findings and from the experiences of the writers.

Conclusions

This study evaluates the performance of the first group of students who transferred from the Harrisburg Area Community College during 1966

to senior institutions, during the three and one-half year period following their transfer.

The vast majority of the students who received associate degrees in transfer programs during 1966 were included in this study, as well as a number of students who did not earn associate degrees. Of the 174 former students in this study, 126 received associate degrees and 48 did not. Just 139 associate degrees were awarded in 1966 to students who were enrolled in transfer programs.

Of the students in this study, 71 percent were found to have earned baccalaureate degrees by the end of the fall 1969 semester. This is a higher proportion than had been noted in earlier national studies.

A clear "transfer shock" phenomenon is noted from the performance data, as manifested in a sudden drop in grade point average during the first session at the transfer institution from the average earned previously at the Community College. It is also noted that there is a significant subsequent recovery of achievement during later semesters. On the average, students earned a 2.31 grade point average during their first session at senior institutions during 1966, a drop of .42 grade points from their earlier average earned at H.A.C.C. However, their cumulative average at the transfer institution subsequently rose to 2.56, to result in an average drop of 0.24 grade points from the achievement level earned at H.A.C.C.

Forty-nine of the 56 colleges who were requested to send academic transcripts for this study provided the information requested, either

in the form of academic transcripts or other forms of specific academic information. This extensive cooperation attests to the interest on the part of senior institutions in this type of study. Nine transfer institutions noted that their policy regarding student transcripts forbids their release to institutions with students' permission. However, two of these colleges (within Pennsylvania) agreed to supply specific information necessary for the completion of this study.

The students in this study were spread over a wide range of high school achievement, essentially over the upper four quintiles. Similarly, these students earned averages at H.A.C.C. ranging from a minimum of a 2.00 (C average) to a high of nearly 4.00 (A average). Two-thirds earned an average from between 2.00 and 2.99, and three-tenths earned an average from between 3.00 and 4.00 at H.A.C.C.

Females earned higher grades at all levels--at high school, at H.A.C.C., and at the senior college. A greater proportion of females earned baccalaureate degrees than did males.

Students attended several types of colleges. One-third enrolled at Pennsylvania State Colleges, four-tenths at other colleges in Pennsylvania, and one-fourth at out-of-state colleges. Shippensburg State College, Millersville State College, Pennsylvania State University, and Temple University ranked highest in the number of transfer students enrolled from H.A.C.C. in 1966. (This pattern has changed in that, during 1969, Capitol Campus of Penn State enrolled the most transfer students.)

The educational programs in which students enrolled at senior institutions included secondary education, business administration,

liberal arts, elementary education, social science, and science and engineering, in that rank order. For males, secondary education and business administration were most popular, and for females elementary education was most popular.

Earning a baccalaureate degree appeared to be related to a number of personal and academic factors. Students at Pennsylvania State Colleges, older students, students who ranked high in their high school class, and women students earned degrees proportionally more than counterpart groups.

Of the baccalaureate graduates who first earned associate degrees, females tended to rank high in their high school class, but males were spread broadly over all but the lowest high school rank.

Recommendations

The findings of this study are expected to have significant value to educators who are concerned with student transfers from community colleges to senior institutions. The writers make several recommendations which grow from their experiences with this study and with related studies.

1. Because the achievement by transfer students from community colleges to four-year colleges and universities is of general interest to educators and other persons in Pennsylvania, a state-wide study to include all student transfers from community colleges is necessary to provide needed information about this basic aspect of the Pennsylvania system of higher education.

2. The "transfer shock" phenomenon for students who transfer from two-year colleges to four-year colleges is well-documented. Factors which contribute to this condition need to be identified, and programs should be implemented to reduce this shock and the attrition which results from it. A detailed study of the etiology of the transfer shock within Pennsylvania colleges would be worthwhile. Such a study should focus on student perceptions of their new college environment, what their special problems are during the first semester at the transfer college, how existing services might be made available for transfer students, and what new services are needed to help make adjustment to the new institution easier.
3. Because of a growing interdependence between community colleges and senior institutions of higher education, senior colleges should support research about transfer students. The writers recommend that senior institutions continue to provide to community colleges academic transcripts of former students, requiring only that the community colleges guarantee confidentiality of the transcripts and restrict their use to research purposes. Current concern for the confidentiality of the student's personal and academic record is laudable, but such policy, ridigly applied, poses a barrier to meaningful inter-institutional follow-up of student performance. Increasingly, two-year and four-year institutions should look forward to removal of unnecessary walls of separation which restrict the successful movement of students from one institution to the other.

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APPENDIX

TABLE 1
SEX OF TRANSFER STUDENTS

	N	%
Male	111	63.8
Female	63	36.2
Total	174	100.0

TABLE 2
AGE* DISTRIBUTION FOR MALES AND FEMALES

	Male		Female		Total	
	N	%	N	%	N	%
18-20	1	.9	0	0	1	.6
21-24	88	79.3	54	85.7	142	81.6
25-29	18	16.2	2	3.2	20	11.5
30 & over	4	3.6	7	11.1	11	6.3
Total	111	100.0	63	100.0	174	100.0

* Age as of December 31, 1969

TABLE 3
PREVIOUS COLLEGE ATTENDED BEFORE ENTERING H.A.C.C.
FOR MALES AND FEMALES

	Male		Female		Total	
	N	%	N	%	N	%
No prior college	94	84.7	59	93.7	153	87.9
Attended college	17	15.3	4	6.3	21	12.1
Total	111	100.0	63	100.0	174	100.0

TABLE 4
HIGH SCHOOL RANK IN CLASS OF MALES AND FEMALES

	Male		Female		Total	
	N	%	N	%	N	%
Upper fifth	11	9.9	25	39.7	36	20.7
Second fifth	22	19.8	17	27.0	39	22.4
Middle fifth	30	27.0	10	15.9	40	23.0
Fourth fifth	29	26.1	2	3.2	31	17.8
Lowest fifth	9	8.1	1	1.6	10	5.7
Unknown	10	9.0	8	12.7	18	10.7
Total	111	100.0	63	100.0	174	100.0

TABLE 5
GRADE POINT AVERAGE EARNED BY MALES AND FEMALES AT H.A.C.C.

	Male		Female		Total	
	N	%	N	%	N	%
1.50-1.99	3	2.7	1	1.6	4	2.3
2.00-2.49	47	42.3	16	25.4	63	36.2
2.50-2.99	38	34.2	15	23.8	53	30.5
3.00-3.49	14	12.6	21	33.3	35	20.1
3.50-4.00	9	8.1	10	15.9	19	10.9
Total	111	100.0	63	100.0	174	100.0

TABLE 6
CURRICULUM OF MALES AND FEMALES AT H.A.C.C.

	Male		Female		Total	
	N	%	N	%	N	%
Liberal arts	50	45.0	38	60.3	88	50.6
Business administration	30	27.0	2	3.2	32	18.4
Education	21	19.0	18	28.6	39	22.4
Others	10	9.0	5	7.9	15	8.6
Total	111	100.0	63	100.0	174	100.0

TABLE 7
ASSOCIATE DEGREES EARNED BY MALES AND FEMALES

	Male		Female		Total	
	N	%	N	%	N	%
Earned associate degree	79	71.2	47	74.6	126	72.4
No associate degree	32	28.8	16	25.4	48	27.6
Total	111	100.0	63	100.0	174	100.0

TABLE 8
COLLEGES ATTENDED AND FREQUENCIES OF ATTENDANCE
BY SEPARATE CURRICULAR GROUPS AT H.A.C.C.

	Lib. Arts N/%	Bus Adm. N/%	Educa. N/%	Others N/%	Total N	%**
Pennsylvania State Colleges						
Bloomsburg	0	0	3	1	4	
Kutztown	1	0	1	0	2	
Lock Haven	2	0	0	1	3	
Mansfield	3	0	3	1	7	
Millersville	8	0	9	1	18	
Shippensburg	11	2	8	1	22	
Slippery Rock	0	0	2	0	2	
West Chester	2	0	0	0	2	
Total/Percent*	27/45.0	2/3.3	26/43.3	5/8.3	60	34.5
Other Pennsylvania Colleges						
Dickinson	2	0	0	0	2	
Elizabethtown	2	8	3	1	14	
Franklin & Marshall	1	1	0	0	2	
Lebanon Valley	1	0	1	0	2	
Messiah	6	0	0	1	7	
Penn State-Capitol	5	0	0	1	6	
Penn State-Univ Park	6	2	2	0	10	
Temple	9	7	0	0	16	
Others	5	2	1	2	10	
Total/Percent*	37/53.6	20/29.0	7/10.1	5/7.2	69	39.6
Out-of-State Colleges						
Jacksonville Univ	1	3	0	0	4	
Memphis State	0	2	3	0	5	
Mt. St. Mary	2	0	0	0	2	
Tri-State	0	0	0	2	2	
Univ of Arkansas	2	0	0	0	2	
Univ of Oklahoma	1	2	0	0	3	
West Virginia Univ	1	1	0	1	3	
Others	18	1	3	2	24	
Total/Percent*	25/55.5	9/20.0	6/13.3	5/11.1	45	25.9
Total/Percent* (all colleges)	89/50.9	31/17.9	39/22.5	15/8.7	174	100.0

* Add horizontally to total 100 percent
** Add vertically to total 100 percent

TABLE 9
CURRICULUM AT TRANSFER COLLEGES FOR MALES AND FEMALES

	Male		Female		Total	
	N	%	N	%	N	%
Liberal arts	15	13.5	12	19.0	27	15.5
Elementary education	5	4.5	20	31.7	25	14.4
Secondary education	25	22.5	11	17.5	36	20.7
Social science	14	12.6	7	11.1	21	12.1
Science & engineering	10	9.0	2	3.2	12	6.9
Business administration	25	22.5	3	4.8	28	16.1
Others & unknown	17	15.3	8	12.7	25	14.4
Total	111	100.0	63	100.0	174	100.0

TABLE 10
GRADE POINT AVERAGE EARNED BY MALES AND FEMALES
AT TRANSFER INSTITUTIONS

	Male		Female		Total	
	N	%	N	%	N	%
Up to 1.99	20	20.2	3	6.0	23	15.4
2.00-2.49	36	36.4	10	20.0	46	30.9
2.50-2.99	29	29.3	19	38.0	48	32.2
3.00-3.49	10	10.1	16	32.0	26	17.5
3.50-4.00	4	4.0	2	4.0	6	4.0
Total	99	100.0	50	100.0	149	100.0

TABLE II
COMPARISON OF GRADE POINT AVERAGES EARNED AT H.A.C.C. & AT TRANSFER COLLEGES

	H.A.C.C. Cumul.		Transfer College 1st sem		Transfer College Cumul.		GPA Drop, H.A.C.C. less Trans. Cumul.*
	N	GPA	N	GPA	N	GPA	
Pennsylvania State Colleges							
1		3.01		2.58		2.82	0.19
2		2.50		2.31		2.65	0.01
3		2.50		2.97		1.87	0.63
4		2.96		2.78		2.85	0.11
5		2.56		1.60		1.84	0.72
6		2.27		2.35		2.38	-0.11
7		2.54		2.23		2.80	0.02
8		2.87		2.31		2.53	0.36
Total	60	2.82	55	2.45	52	2.64	0.24
	**52	2.88					
Other Pennsylvania Colleges							
9		2.93		1.25		2.77	0.43
10		3.04		2.05		2.38	0.66
11		3.11		2.59		2.82	0.29
12		2.72		2.04		2.86	0.52
13		2.79		2.66		2.96	0.09
14		2.73		2.06		2.21	0.52
15		2.60		1.95		2.29	0.27
16		2.92		1.92		2.35	0.57
17		2.72		2.19		2.41	0.31
Total	69	2.77	68	2.19	64	2.56	0.24
	**64	2.80					
Out-of-State Colleges							
18		2.20		2.04		2.08	0.12
19		2.17		2.38		-	-
20		2.27		1.83		-	-
21		2.37		2.30		2.19	0.18
22		3.10		3.23		3.35	0.14
23		2.26		2.12		2.10	0.16
24		3.09		2.84		2.85	0.24
25		2.59		2.28		2.43	0.29
Total	45	2.55	41	2.32	33	2.43	0.25
	**33	2.68					
Total, all colleges	174	2.73	164	2.31	149	2.56	0.24
	**149	2.80					

*Based on the academic records of only those students for whom data were available from the transfer institutions.
**Includes only students for whom cumulative GPA at the senior institutions was known.

TABLE 12
BACHELOR'S DEGREES RECEIVED BY MALE AND FEMALE STUDENTS

	Rec'd bach degree	Did not receive degree	Unknown	Total	Percent who earned degree
Male	74	27	9	110	67.3
Female	49	7	7	63	77.8
Total	123	34	16	173	71.1

TABLE 13
BACHELOR'S DEGREES RECEIVED BY COLLEGES ATTENDED

	Rec'd bach degree	Did not receive degree	Unknown	Total	Percent who earned degrees
Pennsylvania State Colleges					
Bloomsburg	4	0	0	4	100.0
Kutztown	1	1	0	2	50.0
Lock Haven	3	0	0	3	100.0
Mansfield	2	0	5	7	28.6
Millersville	12	5	1	18	66.7
Shippensburg	21	1	0	22	95.5
Slippery Rock	1	0	1	2	50.0
West Chester	1	1	0	2	50.0
Total	45	8	7	60	75.0
Other Pennsylvania Colleges					
Dickinson	2	0	0	2	100.0
Elizabethtown	11	3	0	14	78.6
Franklin & Marshall	1	1	0	2	50.0
Lebanon Valley	2	0	0	2	100.0
Messiah	6	1	0	7	85.7
Penn State-Capitol	4	2	0	6	66.7
Penn State-Univ Park	8	2	0	10	80.0
Temple	8	8	0	16	50.0
Others	7	1	2	10	70.0
Total	49	18	2	69	71.0
Out-of-State Colleges					
Jacksonville Univ	3	0	1	4	75.0
Memphis State	3	2	0	5	60.0
Mt. St. Mary	2	0	0	2	100.0
Tri-State	1	1	0	2	50.0
Univ of Arkansas	0	0	2	2	0
Univ of Oklahoma	3	0	0	3	100.0
West Virginia Univ	1	2	0	3	33.3
Others	16	3	5	24	66.7
Total	29	8	8	45	64.4
Total, all colleges	123	34	17	174	70.7

TABLE 14
BACHELOR'S DEGREES RECEIVED BY AGE*

	Rec'd bach degree	Did not receive degree	Unknown	Total	Percent who earned degree
18-24	94	33	15	142	66.2
25-29	18	1	1	20	90.0
30 & over	10	0	0	10	100.0
Total	122	34	16	172	70.9

* Age as of December 31, 1969

TABLE 15
BACHELOR'S DEGREES RECEIVED BY HIGH SCHOOL RANK IN CLASS

	Rec'd bach degree	Did not receive degree	Unknown	Total	Percent who earned degree
Upper fifth	30	4	2	36	83.3
Second fifth	28	6	5	39	71.8
Middle fifth	25	8	6	39	64.1
Fourth fifth	23	7	1	31	74.2
Lowest fifth	6	4	0	10	60.0
Unknown	11	4	2	17	64.7
Total	123	33	16	172	71.1

TABLE 16
BACHELOR'S DEGREES RECEIVED BY ATTENDANCE AT A COLLEGE
BEFORE ENTERING H.A.C.C.

	Rec'd bach degree	Did not receive degree	Unknown	Total	Percent who earned degree
No prior college	104	32	15	151	68.9
Attended college	18	2	1	21	85.7
Total	122	34	16	172	70.9

TABLE 17
BACHELOR'S DEGREES RECEIVED BY SEX AND BY
HIGH SCHOOL RANK IN CLASS, FOR STUDENTS WHOSE
INITIAL COLLEGE WAS H.A.C.C.

	Male		Female		Total	
	N	%	N	%	N	%
Upper fifth	8	80.0	22	97.1	30	88.2
Second fifth	13	76.5	8	80.0	21	77.8
Middle fifth	13	65.0	7	87.5	20	71.4
Fourth fifth	18	78.3	1	50.0	19	76.0
Lowest fifth	3	42.9	1	100.0	4	50.0
Total	55	71.4	39	86.7	94	77.0

TABLE 18
BACHELOR'S DEGREES RECEIVED BY
ASSOCIATE DEGREE RECIPIENTS AND NON-RECIPIENTS

	1967 & 68		1969		Total	
	N	%	N	%	N	%
Recipients	72	57.1	20	15.9	92	73.0
Non-recipients	14	29.2	17	35.4	31	64.6
Total	86	49.4	37	21.3	123	70.7

Percentages are based upon 126 associate degree recipients and 48 non-recipients.

TABLE 19
PROPORTIONS OF ALL BACHELOR'S DEGREES EARNED
BY RANK IN HIGH SCHOOL CLASS FOR MALES AND FEMALES
WHOSE INITIAL COLLEGE WAS H.A.C.C.

	Male		Female		Total	
	N	%	N	%	N	%
Upper fifth	8	14.5	22	56.4	30	31.9
Second fifth	13	23.6	8	20.5	21	22.3
Middle fifth	13	23.6	7	17.9	20	21.3
Fourth fifth	18	32.7	1	2.6	19	20.2
Lowest fifth	3	5.4	1	2.6	4	4.3
Total	55	100.0	39	100.0	94	100.0